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REMARKS

In the Office Action, the Examiner indicated that claims 1 through 25 are pending in the application and the Examiner rejected all claims.

Claim Rejections, 35 U.S.C. §112

At item 2 of the Office Action, the Examiner rejected claims 1-25 under 35 U.S.C. §112, second paragraph. The claims have been amended to remove the antecedent-basis issue with respect to claim 1. In addition, claims 1, 14, and 20 have been amended to clarify the issues identified as being not clearly understood. Applicant submits that the claims meet the requirements of 35 U.S.C. §112, second paragraph. Accordingly, the Examiner is respectfully requested to reconsider and withdraw the rejection of the claims under 35 U.S.C. §112.

Claim Rejections, 35 U.S.C. §103

In items 4-18 on pages 2-7 of the Office Action, the Examiner rejected claims 1-25 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,282,561 to Jones et al. ("Jones") in view of U.S. Patent No. 6,611,693 to Soini et al.

The Present Invention

The present invention provides, for use in a portable device, a resource management method, system, and product that insures that sufficient runtime resources (i.e., volatile memory

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such as RAM) are available for running a new application component scheduled to be installed and stored on the portable device, before it is stored on the device. When an attempt is made to store the new application component on the portable device (e.g., in non-volatile memory such as flash memory), the storage attempt is blocked unless sufficient runtime resources are available for use by that application component and all of the application components already stored on the portable device running simultaneously.

When determining the amount of runtime resources available to be used by the to-be-stored application, the invention assumes that all existing programs already stored on the portable device are using the maximum amount of runtime resources that they need. By storing a new application component on the portable device only if sufficient runtime system resources are currently available; reserving runtime system resources when the new application component is stored; and running stored application components using only the amount of runtime system resources reserved for those stored application components, the present invention insures that each stored application component will always have a sufficient amount of runtime resources to execute properly. Accordingly, the present invention prevents improper operation of stored application components due to running too many application components simultaneously, poorly designed application components, and/or destructive application components.

U.S. Patent No. 6,282,561 to Jones et al.

U.S. Patent No. 6,282,561 to Jones et al. ("Jones") teaches a resource management mechanism to ensure that real-time application programs running on a single machine or set of

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machines exhibit predictable behavior. Jones et al. is specifically concerned with managing the loading of already-stored programs into RAM when there are not enough run-time resources available, i.e., Jones may block the run-time operation of a program already stored on a device if there are insufficient run-time resources to properly run that program. Various options exist in Jones, including the ability to run a program at a diminished capacity using less than the optimal quantity of run-time resources and also includes a dynamic feedback mechanism for initiating renegotiation of run-time resource reservations when appropriate.

U.S. Patent No. 6,611,693 to Soini et al.

U.S. Patent No. 6,611,693 to Soini et al. teaches a multi-service mobile station that is always automatically ready for use when a sufficiently charged battery is connected. The Examiner relies on Soini for a teaching of the storage of data in flash memory when a battery is losing power. Soini describes, without explanation as to how, the idea of always making sure that the amount of unsaved data at any given time does not exceed the available storage in a flash memory.

The Examiner has not Established a *prima facie* Case of Obviousness

As set forth in the MPEP:

To establish a *prima facie* case of obviousness, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skilled in the art, to modify the reference or to combine reference teachings.

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As noted above, the present invention blocks completely the storage on a portable device of a program that a user is attempting to store on the portable device, if the possibility exists that there will not be sufficient run-time resources available on the portable device to run the program properly. More specifically, a determination is made as to the amount of run-time resources required to run all programs currently stored on the portable device at their maximum level, and a determination of the quantity of run-time resources that would remain available if such already-stored programs were operating in this manner. The present invention also determines the maximum amount of run-time resources required of the to-be-stored application, and if there are sufficient available run-time resources for all of the programs stored on the portable device and the to-be-stored program to run at their full capacity simultaneously, then the to-be-stored application is allowed to be stored on the portable device. If there are insufficient run-time resources, either the to-be-stored application is blocked from being stored on the portable device, or one or more of the currently-stored applications is removed to assure that there will be sufficient run-time resources for the remaining stored applications and the new to-be-stored application to run properly.

Jones contains no teaching or suggestion of this feature. Jones does manage the allocation of run-time resources so that available programs can run properly. However, the resource manager of Jones cannot block the storage of new applications in the non-volatile memory (e.g., the hard drive or flash memory) of a system utilizing the Jones resource manager, and this concept is not taught or suggested by Jones. Jones simply manages the use

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of run-time resources by any programs stored on the fixed storage memory; the number, size, etc. of programs in the fixed storage memory of Jones is irrelevant to the disclosure of Jones.

Applicant has amended the claims to more specifically recite the management of storage of applications on a portable device to more clearly distinguish this management from the run-time management taught by Jones. Each of the independent claims, and therefore each of the dependent claims, includes a clear recitation of these elements. The mere acknowledgement by applicant that portable devices exist and that they require resource management does not teach or suggest the claimed invention.

The addition of Soini does not supply the elements missing from Jones nor is there any suggestion or motivation in Soini to modify the disclosure of Jones to achieve the claimed invention. Soini does teach the management of unsaved data so that there is never more unsaved data than the capacity of flash memory used for storing unsaved data when a battery is failing. However, Soini is devoid of any teaching or suggestion of the blocking of storage of an application on a portable device if the run-time resources needed to run all programs stored on the portable device, including the to-be-installed application, would be inadequate.

Accordingly, applicant asserts that the claims, as amended, patentably define over Jones and/or Jones combined with the Soini et al. Thus, the claims are in condition for allowance. Reconsideration of the claims and an early Notice of Allowance are earnestly solicited.

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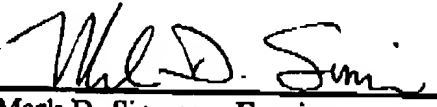
Conclusion

The present invention is not taught or suggested by the prior art. Accordingly, the Examiner is respectfully requested to reconsider and withdraw the rejection of the claims.

The Commissioner is hereby authorized to charge any fees associated with this communication to Deposit Account No. 09-0461.

Respectfully submitted

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